

3149 - Agronomy

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SPACE ARRANGEMENTS AND CONSORTIUM IN THE INITIAL DEVELOPMENT OF JATROPHA CULTURE

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The study aimed to investigate and evaluate the *Jatropha curcas* crop management, especially spatial arrangements for maximum agricultural productivity. In greenhouse conditions were produced *Jatropha* seedlings in plastic bags of 1.7 L with a commercial substrate Rendmax Citrus. For the emergence and maintenance of the seedlings, irrigation, fertilizer application and other cultural practices and phytosanitary control, were carried out as needed. When the seedlings were 60 days of emergence were transplanted rows in the field by hand and fertilized in accordance with the recommendation. In Mococa-SP, the experiment under field conditions was conducted in a randomized block design with split plot arrangement and five replications, consisting of three levels of spatial arrangement factor - row spacing x plant spacing (plots) and two levels of intercrop factor (subplots), resulting in six treatments: T1 = 4.0m x 3.0m, without intercropping deployment, T2 = 4.0m x 3.0m, with intercropping implementation, T3 = 3.0m x 3.0m, without intercropping deployment, T4 = 3.0m x 3.0m, with intercropping implementation; T5 = 3.0m x 2.0m, without intercropping deployment, T6 = 3.0m x 2.0m, with intercropping implementation. Since the time of transplant (13/04/2010) was not as suitable due to a low rainfall, plants were irrigated. After the dry season, especially July and August, a good distribution of rainfall favored the development of the culture of *Jatropha*. The traits evaluated were phenological stages, leaf area index, plant height, agricultural productivity and efficient use of land. Consortium, as treatment with *crotalaria*, were not statistically significant differences for the LAI until 3 months post-transplantation and a small difference to the average height of plants at the 2nd month. The efficient use of land values were greater than 1.0 for all treatments consortium, while the yield of *Jatropha* was null. It was concluded that considering mainly the sustainability factor, the consortium of *Jatropha*, in the early stages of development, with intercrops is quite feasible, to confirm for a more efficient use of land and allow the generation of income for the property.